

IN THE DRAWINGS

The attached sheets of drawings include changes to Figs. 1 and 5. These sheets, which include Figs. 1, 2, 5, and 6, replace the original sheets including Figs. 1, 2, 5, and 6. The drawings include reference characters identifying certain axes and an angle recited in the claims.

Attachment: Replacement Sheets (2).

REMARKS/ARGUMENTS

Favorable reconsideration of this application, in light of the present amendments and following discussion, is respectfully requested.

Claims 13-25 are pending. Claim 22 is canceled. Claim 23 is withdrawn. Claim 23 is also amended to recite substantially similar structure to that added to Claim 13 in the previous amendment. Claims 1-12 were canceled previously. Support for the amendment to Claim 23 can be found in Fig. 1 and in the published application in numbered paragraph [0048], for example. Reference characters and identification lines are added to Figs. 1 and 5, and the specification is amended in light of the amendments to the figures. No new matter is added.

In the outstanding Office Action, the drawings were objected to as not showing all of the features of Claims 13 and 24. The specification was objected to as failing to provide proper antecedent basis for the claimed subject matter. Claims 13, 24, and 25 were rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. Claims 13, 24, and 25 were rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Claims 13, 14, 16-22, 24, and 25 were rejected under 35 U.S.C. § 103(a) as obvious over Ohnishi et al. (U.S. Patent No. 5,934,575, herein "Ohnishi") in view of Background Art in the specification. Claim 15 was rejected under 35 U.S.C. § 103(a) as obvious over Ohnishi, the Background Art, and Inui (Japanese Patent No. JP 2000-140675, herein "JP '675").

At the outset, Applicants note with appreciation the courtesy of an interview granted by Primary Examiner Faye Francis to Applicants' representative on November 20, 2009. During the interview, the objections to the drawings and specifications were discussed, and Examiner Francis indicated that she would review a formally submitted set of drawings, but cautioned against the addition of new matter. The issue of whether Claims 13 and 24 recite

new matter was discussed, and the definition of a cylinder was reviewed during the interview. Examiner Francis indicated that she would review formally submitted arguments regarding whether the present figures support a recitation that an axis of the cylindrical member is disposed at a non-zero angle to the axis of the venturi. During the interview, Applicants' representative noted that a person of ordinary skill in the art would understand a cylindrical member, especially one with circular or oval ends, to have a direction along which the cylindrical member extends, and that this direction corresponds to an axis of the cylinder.

Regarding the objection to the drawings as not showing all of the features of Claims 13 and 24, Figs. 1 and 5 are amended and these amended figures are provided on replacement sheets submitted herewith. The amended figures show the axis of the venturi and the axis of the cylindrical impact member as well as the angle between these two axes. Accordingly, Applicants respectfully submit that the objection to the drawings is overcome.

Regarding the objection to the specification as failing to provide proper antecedent basis for the claimed subject matter, that rejection is respectfully traversed by the present response.

There is no *in haec verba* requirement for the specification. In other words, the specification does not have to use identical terminology to the terminology used in the claims. Accordingly, Applicants respectfully submit that the original specification provides proper antecedent basis for the claimed subject matter. However, in order to advance prosecution, and in light of the discussion with Examiner Francis and the amendments to the figures noted above, the specification is amended to explicitly identify reference numbers denoting the axis of the cylindrical impact member and the axis of the venturi nozzle and the angle between these two axes. Applicants respectfully submit that these relationships in the drawings and in the specification would have been apparent to a person of ordinary skill in the art viewing the drawings, even without the above-noted newly added reference numbers.

Accordingly, Applicants respectfully submit that the amendments to the figures and the drawings do not add new matter.

Regarding the rejection of Claims 13, 24, and 25 as failing to comply with the enablement requirement and as failing to comply with the written description requirement, both of these rejections are respectfully traversed by the present response.

As discussed during the personal interview, Applicants respectfully submit that a person of ordinary skill in the art analyzing the drawings filed with the original application would understand that a cylindrical impact member has an axis, just as any cylinder has an axis. Additionally, Applicants respectfully submit that a person of ordinary skill in the art would understand that a venturi has a longitudinal axis, especially in view of Figs. 1 and 2 of the present application. As shown in Fig. 1, the impact member (2) is disposed in the pathway of the venturi nozzle (Fig. 1 shows the impact member (2) disposed directly in the path of the flow passing through the outlet (6)). As is apparent from Fig. 5(a), the flow shown by the arrow discussed on page 17 of the original specification is transverse to the axis of the cylindrical portion of the impact member (2). Applicants respectfully submit that Figs. 1, 2, and 5 convey to a person of ordinary skill in the art that the venturi (1) has a longitudinal axis and the cylindrical portion of the impact member (2) has an axis **transverse** to the longitudinal axis of the venturi.

During the interview, Examiner Francis noted that a cylinder may encompass shapes such as rectangles or squares, and therefore, it is indeterminate what axis of the cylinder is recited in Claim 13. However, during the interview, it was noted that Claim 13 recites "the impact member is a cylindrical member of which a bottom is in a form of a part of a true circle or an oval" and therefore, a person of ordinary skill in the art would understand the direction of extension of the axis of the cylinder.

Accordingly, Applicants respectfully submit that the figures support the features added to Claim 13 and support Claims 24 and 25 added in the previous response, and these features and new claims do not constitute new matter. In this regard, MPEP § 2163.02 states:

2163.02 Standard for Determining Compliance With the Written Description Requirement

The courts have described the essential question to be addressed in a description requirement issue in a variety of ways. An objective standard for determining compliance with the written description requirement is, "does the description clearly allow persons of ordinary skill in the art to recognize that he or she invented what is claimed." *In re Gosteli*, 872 F.2d 1008, 1012, 10 USPQ2d 1614, 1618 (Fed. Cir. 1989). Under *Vas-Cath, Inc. v. Mahurkar*, 935 F.2d 1555, 1563-64, 19 USPQ2d 1111, 1117 (Fed. Cir. 1991), to satisfy the written description requirement, an applicant must convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession of the invention, and that the invention, in that context, is whatever is now claimed...

Whenever the issue arises, the fundamental factual inquiry is whether the specification conveys with reasonable clarity to those skilled in the art that, as of the filing date sought, applicant was in possession of the invention as now claimed. See, e.g., *Vas-Cath, Inc. v. Mahurkar*, 935 F.2d 1555, 1563-64, 19 USPQ2d 1111, 1117 (Fed. Cir. 1991). An applicant shows possession of the claimed invention by describing the claimed invention with all of its limitations using **such descriptive means as words, structures, figures, diagrams, and formulas that fully set forth the claimed invention.** *Lockwood v. American Airlines, Inc.*, 107 F.3d 1565, 1572, 41 USPQ2d 1961, 1966 (Fed. Cir. 1997). Possession may be shown in a variety of ways including description of an actual reduction to practice, or by showing that the invention was "ready for patenting" such as by the disclosure of **drawings** or structural chemical formulas that show that the invention was complete, or by describing distinguishing identifying characteristics sufficient to show that the applicant was in possession of the claimed invention. See, e.g., *Pfaff v. Wells Elecs., Inc.*, 525 U.S. 55, 68, 119 S.Ct. 304, 312, 48 USPQ2d 1641, 1647 (1998); *Regents of the University of California v. Eli Lilly*, 119 F.3d 1559, 1568, 43 USPQ2d 1398, 1406 (Fed. Cir. 1997); *Amgen, Inc. v. Chugai Pharmaceutical*, 927 F.2d 1200, 1206, 18 USPQ2d 1016, 1021 (Fed. Cir. 1991) (one must define a compound by "whatever characteristics sufficiently distinguish it").

The subject matter of the claim need not be described literally (i.e., using the same terms or *in haec verba*) in order for the disclosure to satisfy the description requirement. If a claim is amended to include subject matter, limitations, or terminology not present in the application as filed, involving a departure from, addition to, or deletion from the disclosure of the application as filed, the examiner should conclude that the claimed subject matter is not described in that application. This conclusion will result in the rejection of the claims affected under 35 U.S.C.112, first paragraph - description requirement, or denial of the benefit of the filing date of a previously filed application, as appropriate. (Emphasis added).

Thus, an Applicant may show possession of the claimed invention by describing the claimed invention using words, structures, **figures, diagrams**, and formulas that fully set forth the claimed invention. In the present case, Figs. 1, 2, 5(a), and 5(b) show that the Applicants had possession of the inventions recited in Claims 13, 24, and 25 at the time of filing the application. Additionally, a person of ordinary skill in the art viewing the figures of the present application would have been able to reproduce the inventions recited in Claims 13, 24, and 25. Accordingly, Applicants respectfully submit that the rejections of Claims 13, 24, and 25 as failing to comply with the enablement requirement and written description requirement are overcome.

Regarding the rejection of Claims 13, 14, 16-22, 24, and 25 as obvious over Ohnishi, the Background Art, and JP '675, those rejections are respectfully traversed by the present response. The outstanding Office Action has not addressed the features added in the previous response to Claim 13. MPEP § 2163.06 makes clear that the subject matter added in the previous response to Claim 13 should have been considered by the Examiner even if this amendment is considered by the Examiner to add new matter. MPEP § 2163.06 states:

I. TREATMENT OF NEW MATTER

If new subject matter is added to the disclosure, whether it be in the abstract, the specification, or the drawings, the examiner should object to the introduction of **new matter** under **35 U.S.C. 132** or **251** as appropriate, and require applicant to cancel the **new matter**. If **new matter** is added to

the claims, the examiner should reject the claims under **35 U.S.C. 112**, first paragraph - written description requirement. *In re Rasmussen*, 650 F.2d 1212, 211 USPQ 323 (CCPA 1981). The examiner should still consider the subject matter added to the claim in making rejections based on prior art since the **new matter** rejection may be overcome by applicant.

Thus, the outstanding Office Action should address features recited in a claim, even if the Examiner considers them to constitute new matter. In this regard, Claim 13 recites that the axis of the cylindrical member is disposed at a non-zero angle relative to the axis of the venturi nozzle.

In contrast, Ohnishi, as shown in Fig. 2, describes a conical member used as a projected central area (17). The axis of the conical member is **parallel** to a longitudinal axis of the venturi nozzle.

Ohnishi drives a specific benefit from this arrangement, and the angles α and β are recited in Claim 1 of Ohnishi. Thus, modifying Ohnishi to include an axis of a cylindrical member at a non-zero angle with respect to an axis of the venturi nozzle would render Ohnishi unsuitable for its intended use.

The Background Art section of the present application fails to remedy the deficiencies discussed above regarding to Ohnishi. Rather, the Background Art section does not identify the orientation of the conical or spherical shapes it discusses.

Regarding the assertion of **design choice** in the outstanding Office Action, Applicants respectfully submit that the specific arrangement recited in amended independent Claim 13 provides benefit inasmuch as fewer particles with too fine a consistency accumulate on an impact member with the above-noted arrangement than with other arrangements as discussed in numbered paragraph [0065] of the published application. Thus, as this arrangement affects the operation of the claimed device, the recited arrangement is not a matter of design choice.

JP '675 fails to remedy the deficiencies discussed above regarding Ohnishi and the Background Art inasmuch as, like Ohnishi, JP '675 describes a conical member with an axis

parallel to the axis of the nozzle. Accordingly, no reasonable combination of the cited references would include all of the features recited in amended independent Claim 13 or any of the claims dependent therefrom.

Applicants wish to make the following additional remarks regarding dependent Claim 25, which recites that the axis of the cylindrical member is horizontal. In other words, the axis of the cylindrical member is level.

As discussed in the comparison in the specification regarding Figs. 5a and 5b, the orientation of the axis of the cylindrical member recited in dependent Claim 25 provides a specific benefit, and the cited references are silent regarding such an orientation. Accordingly, Applicants respectfully submit that dependent Claim 25 further patentably distinguishes over any proper combination of the cited references.

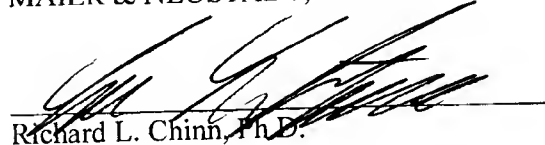
For the foregoing reasons, it is respectfully submitted that this application is now in condition for allowance. A Notice of Allowance for Claims 13-21 and 24-25 is earnestly solicited.

As Claim 23 recites substantially similar features to those recited in Claim 13, and Applicants respectfully submit that Claim 23 should be rejoined in the event Claim 13 is found allowable.

Should Examiner Francis deem that any further action is necessary to place this application in even better form for allowance, she is encouraged to contact Applicants' representative at the below-listed telephone number.

Respectfully submitted,

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